

WHAT IS CLAIMED IS:

1 1. A method to facilitate analysis of a commercial mortgage backed
2 security portfolio associated with a plurality of mortgage loans, comprising:
3 determining base information associated with the portfolio;
4 determining information associated with an additional mortgage loan to
5 be added to the portfolio; and
6 calculating a loan spread for the additional mortgage loan in
7 accordance with a contribution of the additional mortgage loan to the portfolio.

1 2. The method of claim 1, wherein the portfolio is associated with a
2 plurality of credit rating categories, each credit rating category being
3 associated with a current category size, and wherein said calculating includes:
4 determining, for the additional mortgage loan, a category size for each
5 credit rating category.

1 3. The method of claim 2, wherein the determination of category sizes
2 for the additional mortgage loan is based on at least one of: (i) a property
3 type, (ii) a risk value, (iii) debt service coverage ratio information, and (iv) loan
4 to value information.
5

1 4. The method of claim 2, further comprising:
2 adding the category size for the additional mortgage loan to the current
3 category size to determine a combined category size for each credit rating
4 category.

1

1 5. The method of claim 4, further comprising:
2 determining an original profitability of the portfolio;
3 calculating a combined profitability of the portfolio and the additional
4 mortgage loan based on the combined category sizes; and
5 subtracting the original profitability from the combined profitability to
6 determine a profitability of the additional mortgage loan.

1 6. The method of claim 1, wherein the information associated with the
2 additional mortgage loan includes a desired profitability of the additional
3 mortgage loan.

1 7. The method of claim 6, wherein said calculation of the loan spread
2 is an iterative process.

1 8. The method of claim 7, wherein the iterative process includes:
2 determining a trial loan spread for the additional mortgage loan;
3 computing a resulting profitability based on the trial spread; and
4 adjusting the trial loan spread, wherein said computing and adjusting
5 are repeated until the resulting profitability is within a predetermined range of
6 the desired profitability.

1 9. The method of claim 8, wherein said adjusting is based on a
2 duration of the additional mortgage loan.

1 10. The method of claim 9, wherein said adjusting comprises:
2 determining an original duration of the portfolio;

3 calculating a combined duration of the portfolio and the additional
4 mortgage loan; and

5 subtracting the original duration from the combined duration to
6 determine the duration of the additional mortgage loan.

1 11. The method of claim 6, wherein the method is performed for a
2 plurality of desired profitability values to determine a plurality of loan spread
3 values.

1 12. The method of claim 1, wherein said calculating is performed for a
2 plurality of loan term periods.

1 13. The method of claim 1, wherein the base information includes at
2 least one of: (i) balance information, (ii) loan rate information, (iii) loan term
3 information, (iv) remaining term information, (v) amortization term information,
4 (vi) servicing fee information, (vii) payment basis information, (viii) payment
5 basis servicing fee information, and (ix) calculation of interest reserve
6 information;

1 14. The method of claim 1, wherein the information associated with the
2 additional mortgage loan includes at least one of: (i) treasury information, (ii)
3 swap information, (iii) credit rating category spread information, (iv) credit
4 rating category size information, (v) price cap information, (vi) coupon
5 information, (vii) yield information, (viii) total flat bond proceed information, (ix)
6 collateral balance information, and (x) deal duration information.

1 15. The method of claim 1, wherein said calculating is performed via a
2 substantially real-time pricing application.

1 16. The method of claim 15, wherein said calculating is further
2 performed utilizing a function library adapted to generate loan and/or
3 commercial mortgage backed securities cash flows.

1 17. The method of claim 1, wherein the contribution of the additional
2 mortgage is calculated via a method of subtraction process.

1 18. The method of claim 1, wherein the contribution of the additional
2 mortgage loan is calculated via at least one of: (i) a weighted average
3 contributed loan size, (ii) a duration, (iii) a Newton's method process, (iv) a
4 Secant method process, and (v) a root finding method for a non-linear
5 equation.

1 19. The method of claim 1, further comprising:
2 generating, based on said calculating, individual loan pricing outputs
3 expressed as spread values in accordance with profitability targets.

1 20. A computer-implemented method to facilitate analysis of a
2 commercial mortgage backed security portfolio associated with a plurality of
3 mortgage loans and a plurality of credit rating categories, each credit rating
4 category being associated with a current category size, comprising:
5 determining base information associated with the portfolio;
6 determining information associated with an additional mortgage loan to
7 be added to the portfolio, including a desired profitability of the additional
8 mortgage loan;
9 determining, for the additional mortgage loan, a category size for each
10 rating category based on at least one of: (i) a property type, (ii) a risk value,
11 (iii) debt service coverage ratio information, and (iv) loan to value information;

12 adding the category size for the additional mortgage loan to the current
13 category size to determine a combined category size for each rating category;
14 determining an original profitability of the portfolio;
15 calculating a combined profitability of the portfolio and the additional
16 mortgage loan based on the combined category sizes;
17 subtracting the original profitability from the combined profitability to
18 determine a profitability of the additional mortgage loan; and
19 calculating a loan spread for the additional mortgage loan in
20 accordance with a contribution of the additional mortgage loan to the portfolio,
21 wherein the calculation of the loan spread is an iterative process, comprising:
22 determining a trial loan spread for the additional mortgage loan,
23 computing a resulting profitability based on the trial spread, and
24 adjusting the trial loan spread based on a duration of the additional
25 mortgage loan, wherein said computing and adjusting are repeated until the
26 resulting profitability is within a predetermined range of the desired
27 profitability.

1 21. An apparatus, comprising:
2 a processor; and
3 a storage device in communication with said processor and storing
4 instructions adapted to be executed by said processor to:
5 determine base information associated with a commercial
6 mortgage backed security portfolio having a plurality of mortgage
7 loans,
8 determine information associated with an additional mortgage
9 loan to be added to the portfolio, and

10 calculate a loan spread for the additional mortgage loan in
11 accordance with a contribution of the additional mortgage loan to the
12 portfolio.

1 22. The apparatus of claim 21, wherein said storage device further
2 stores at least one of: (i) a portfolio database, (ii) a market information
3 database, and (iii) a contributory bond sizes database.

1 23. The apparatus of claim 21, further comprising:
2 a communication device coupled to said processor and adapted to
3 communicate with at least one of: (i) a user terminal, and (ii) a real time
4 pricing server.

1 24. A medium storing instructions adapted to be executed by a
2 processor to perform a method of facilitating analysis of a commercial
3 mortgage backed security portfolio associated with a plurality of mortgage
4 loans, said method comprising:
5 determining base information associated with the portfolio;
6 determining information associated with an additional mortgage loan to
7 be added to the portfolio; and
8 calculating a loan spread for the additional mortgage loan in
9 accordance with a contribution of the additional mortgage loan to the portfolio.

1 25. A method to facilitate analysis of a commercial mortgage backed
2 security portfolio associated with a plurality of mortgage loans, comprising:
3 determining base information associated with the portfolio;
4 determining information associated with an additional mortgage loan to
5 be added to the portfolio; and

7 with a contribution of the additional mortgage loan to the portfolio.

2 the additional mortgage loan includes a desired loan spread.